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ABSTRACT

This report is a compilation abstracted from an exhaustive investigation into three senior high schools. The areas of investigation cover the general learning environment, selected characteristics of a learning environment, achievement, cost, a summary of findings, and recommendations. Also included are a survey of student opinion, a study of senior high attendance, a survey of teacher experience at one school, and an assessment of advantages/disadvantages of the scheduling method. It is recommended that flexible-modular scheduling not be continued in its present form. Rather, undesirable features should be eliminated and highly valued features should be retained if possible. The resulting schedule will likely hold little flexibility in terms of unscheduled student time, but should provide capabilities to retain high priority characteristics of a good learning environment. (Author/IRT)

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AN EVALUATIVE STUDY OF FLEXIBLE MODULAR SCHEDULING MOTT SENIOR HIGH SCHOOL, WARREN CONSOLIDATED SCHOOLS

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Correspondence regarding publication, circulation, and commentary may be directed to:

James C. Leavell, Director of Research
Macomb Intermediate School District
44001 Garfield Road
Mt. Clemens, Michigan 48043
465-2101 - ext. 222

This report is a compilation abstracted from an exhaustive investigation by Warren Consolidated Schools into their three senior high schools: Warren, Cousino and Mott.

The areas of investigation cover the general learning environment, selected characteristics of a learning environment, achievement, costs, a summary of findings, and recommendations.

Included too are the survey of student opinion, study of senior high attendance, survey of teacher experience at Mott, and Assessment of Advantages/Disadvantages.

Mr. Sylvan Thomas of Roseville Public Schools was kind enough to prepare a critique of the materials following an excellent presentation by Dr. Clayton Pohly of Warren Consolidated Schools to the Macomb County Educational Research Committee. This commentary is included at the end of this booklet.

This detailed research effort was undertaken by Warren Consolidated Schools for the evaluation of flexible-modular scheduling.

I have reproduced these selected areas for distribution in order to provide a sample and benchmark data for other districts considering similar research undertakings.

James C. Leavell, Director of Research
Macomb County Intermediate School District

Roseville Public Schools
Roseville, Michigan
ESEA Title I

May 28, 1971

Mr. Jim Leavall
Macomb Intermediate School District
44001 Garfield
Mt. Clemens, Michigan

Dear Jim:

You ask me for some reactions to the presentation of Dr. Pohly concerning Mod-Flex scheduling at Mott Sr. High. Though I'm not to familiar with this type of programming, I had some impressions that I'll pass on to you.

About the Program:
It seems, according to the data presented that the strength for the success of the program was in the student's ability to adapt to change, and the weakness for its failure was institutional inability to adapt concurrently - and institutional inflexibility prevailed.

About the Presentation:
Dr. Pohly gave an excellent model for Applied Educational Science through his study and its presentation. By this I mean, that each phase of the project, - objective, implementation, evaluation and alternate options were sequentially and succinctly presented.

It isn't often that one can view a program from beginning to end and yet feel that with some rethinking and institutional change the program might be workable.

I might add that I enjoyed the conversation during the presertation that clarified or projected different points of view.

This study certainly would be a basic review for any school administration venturing into this type of curriculum - time pattern.

Sincerely,
Sylvan Thomas
Sylvan Thomas
Instructional Leader, Title I

ST/1

III. GENERAL LEARNING ENVIRONMENT

The Learning Opportunities Opinionnaire completed by all junior class students and most teachers* of each high school included five items designed to measure the respondent's belief regarding his school and its learning environment. (Appendix Item #1) Each response item consisted of a positive statement for which the respondent checked the degree to which he believed it true at his school--from always to usually, to often, to seldom, or never. "Often" was defined as approximately 50% of the time. It should be noted that the student version personalizes the response by using personal pronouns; in the teacher version, "student" is used in lieu of the personal pronoun, thus eliciting beliefs from teachers about students.

In the survey students were identified by school, sex, subject area of greatest interest, and via the final response item designed to identify above average, average, and below average students in terms of marks. Teachers were identified by building, and either as counselors, department head, or other teachers. These identifications permit contrast desired for the evaluation of flexible-modular scheduling and, as well, will permit more detailed study of related questions as appropriate at a given building.

The next five pages report beliefs as evident in the responses and chart analyses thereof.

The percent of respondents of each group whose belief deviated from a response of "often" is shown for each survey item by school for teacher, male student, and female student groups.

Observations contrast groups and indicate the degree of consensus within a group.

The group contrasts compare: (1) teachers and students at each school, and (2) Mott teachers and students with their counterparts at the other schools. (In that responses of boys and girls did not markedly differ, sex contrasts are not charted.)

The degree of consensus within teachers and students is indicated by entering "S" for student or "T" for teacher in the appropriate line and column, indicating whether the belief shown by the charted percent is a majority or plurality position. No entry for a group indicates opinion is essentially equally spread among "more than often", "often", and "less than often".

* 60% of all teachers at Warren and Mott; 80% at Cousino.

THE LEARNING ENVIRONMENT

Re: Item #1 : This high school motivates me (students) to good learning.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	59%	27%	29%	11%	43%	45%
Cousino	54	44	42	4	25	30
Mott	37	64	62	17	11	8

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott			X
b. Teachers/teachers:			
(1) Mott/Cousino			X
(2) Mott/Warren			X
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less oft
(1) Majority	Students	Teachers	
(2) Plurality			

Re: Item #10: I have sufficient freedom to decide how to use my time during the school day.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	23	15	21	52	73	70
Cousino	18	19	12	52	66	33
Mott	96	89	86	0	66	33

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren	x		
(2) At Cousino	x		
(3) At Mott	x		
b. Teachers/teachers:			
(1) Mott/Cousino		x	
(2) Mott/Warren		x	
c. Students/students:			
(1) Mott/Cousino		x	
(2) Mott/Warren		x	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less oft
(1) Majority	F & S		
(2) Plurality			

Re: Item #3: This school provides time to do learning tasks I believe important.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	47	24	22	19	54	53
Cousino	50	27	42	24	41	44
Mott	76	76	77	0	5	4

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/hig
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott	X		
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less oft
(1) Majority	T & S		
(2) Plurality			

Re: Item #4 : Responsibilities given to me are appropriate.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	58	40	41	9	39	25
Cousino	60	47	51	11	25	22
Mott	62	75	74	17	7	3

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott			X
b. Teachers/teachers:			
(1) Mott/Cousino	X		
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less oft
(1) Majority	T & S		
(2) Plurality			

Re: Item #16 : I look forward to going to school each day.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	52	25	30	23	61	52
Cousino	36	29	24	20	53	58
Mott	51	37	43	19	29	33

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less oft
(1) Majority	T		
(2) Plurality	S		

Attendance.

The percent of attendance at a school can indicate attitude toward that school. The average percents of attendance for the three senior high schools were compiled for the three years, 1966-67, 1967-68, and 1968-69 for each quarter, each year, and for the three year period. (Appendix Item #2) Mott's percent of attendance was beyond any doubt equal or better than that of the other schools. While a causal relationship cannot be claimed between the flexible-modular schedule and the percentage of attendance, it can be allowed, however, that the total situation at Mott did not discourage attendance and, in fact, may have encouraged attendance.

Profile of learning environment at Mott.

The opinionnaire measured the environment in terms of motivation, freedom, time for self-directed learning, appropriate responsibility, and anticipation of school. In these terms the data indicates:

1. Mott students (both boys and girls) indicated greater truth of all these aspects than students at the other schools. A majority at Mott perceived these aspects true more than often except for anticipation of school which drew plurality support.

2. Mott teachers rate all aspects equally or more true than other teachers except they believe motivation lower.

3. Teachers and students have quite similar perceptions of these characteristics.

Achievement of attitudinal goals of the flexible-modular philosophy appears realized.

IV. SELECTED CHARACTERISTICS OF A LEARNING ENVIRONMENT

Measurements were taken to determine student and teacher beliefs and teacher experience in characteristic elements of a schedule. Twenty items of the Learning Opportunity Survey mentioned in the previous chapter sought to identify beliefs of students and teachers regarding elements common to most any type of schedule: Access to teachers, library and counselors; curricular choices; lectures; discussions; supervised study; and assignments or projects a part of self-directed student learning.

A cross section of forty-two teachers of Mott High School responded to a survey of teacher experience and assessment of advantages and disadvantages of flexible-modular scheduling. (Appendix Item #3) These instruments sought to measure:

1. Nature and extent of use and future expectation for: (a) large group instruction, (b) small group classes, (c) self-directed student study, (d) ability grouping, and (e) team teaching.

2. Acceptance or rejection of claims often made by proponents of flexible-modular scheduling with respect to the above characteristics.

Purpose of the measurements was twofold:

1. To identify current beliefs with respect to these essential characteristics for the information and guidance of staff at the several buildings, and

2. To focus upon the details of the nature of use of these characteristics to the end that the staff responsible for scheduling may better know the current scene and improve thereon.

Measurements of student and teacher beliefs.

The twenty items of the Learning Opportunity Survey are presented in related groups: Curricular topics; access to teachers, library, counselors, and specialized rooms; student study and aids to self-direction; and other teaching-learning activities.

CURRICULAR TOPICS

Re: Item #8 : I have appropriate choices of courses.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	66%	54%	62%	14%	28%	19%
Cousino	61	67	65	7	17	14
Mott	78	82	89	5	4	2

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren	X		
(2) At Cousino	X		
(3) At Mott	X		
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less often"
(1) Majority	T & S		
(2) Plurality			

Re: Item #20 : I am able to schedule the courses I need.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	61	60	62	9	23	19
Cousino	58	68	64	8	17	15
Mott	56	81	83	9	6	0

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren	X		
(2) At Cousino			X
(3) At Mott			X
b. Teachers/teachers:			
(1) Mott/Cousino	X		
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less oft
(1) Majority	T & S		
(2) Plurality			

Re: Item # 9: Opportunity exists at this school to take the extra-curricular activit
I want.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S
Warren	52	47	38	19	31	41
Cousino	57	57	56	19	27	23
Mott	88	79	81	3	10	7

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/hig
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino	X		
(3) At Mott	X		
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less ofte
(1) Majority	T & S		
(2) Plurality			

Re: Item # 19: I have sufficient opportunity to participate in physical education and sports.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	83	56	41	4	25	40
Cousino	73	65	43	6	22	38
Mott	84	71	44	5	13	31

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino	X		
(2) Mott/Warren		X*	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less often"
(1) Majority	T & boys		
(2) Plurality	girls		

* Girls the same

Re: Item #17 : I have sufficient opportunity to attend musical concerts, dramas, art displays, and cultural assemblies sponsored by this school.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	58	40	44	27	38	30
Cousino	41	46	49	33	34	29
Mott	70	68	77	7	20	12

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino	X		
(3) At Mott	X		
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less often"
(1) Majority	T & S		
(2) Plurality			

Re: Item #18 : I have sufficient opportunity to participate in student government.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	61	40	44	11	38	30
Cousino	50	46	49	17	34	29
Mott	68	27	27	7	49	49

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino	X		
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino			X
(2) Mott/Warren			X

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less oft
(1) Majority	T		
(2) Plurality			S

Profiles. Students at Mott view these aspects of their program in a more positive way than other students except that a strong plurality at Mott (about 15% more than at other schools) find opportunity to participate in student government ~~rare~~. Except on the topic of government a majority of all students and teachers deem each statement usually or always true.

ACCESS TO TEACHERS, LIBRARY, COUNSELORS, AND SPECIALIZED ROOMS.

Re: Item #2: At this school it is easy for me to secure teacher help.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	59%	41%	37%	9%	31%	37%
Cousino	65	47	41	15	32	32
Mott	88	80	72	0	8	5

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less ofte
(1) Majority	T & S		
(2) Plurality			

Re: Item #11 : I am able to secure teacher help outside of scheduled classes when needed.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	38	31	28	30	52	48
Cousino	37	28	30	35	50	47
Mott	93	72	73	0	5	5

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren	X		
(2) At Cousino	X		
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less often"
(1) Majority	T & S		
(2) Plurality			

Re: Item #5: At this school I have suitable access to the library.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	64	33	34	19	47	51
Cousino	50	46	39	19	38	38
Mott	93	82	79	1	6	16

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/hig
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino	X		
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less oft
(1) Majority	T & S		
(2) Plurality			

Re: Item #6: I have suitable access to counselors.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	77	59	53	8	25	24
Cousino	64	58	55	4	20	28
Mott	80	59	49	5	11	22

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino	X		
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino	X		
(2) Mott/Warren	X		

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less often"
(1) Majority	T & S		
(2) Plurality			

Re: Item # 7: I have suitable access to typing rooms, laboratories, shops, and other special rooms necessary to my program.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	50	34	44	23	48	39
Cousino	31	35	40	29	45	36
Mott	76	65	67	1	14	11

Observations.

1. Contrasts for more than "often".

a. Teachers/students:	Similar	High/low	Low/hig
(1) At Warren		X	
(2) At Cousino	X		
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less of
(1) Majority	T & S		
(2) Plurality			

Re: Item #24: At this school, teachers, special study or work rooms, and learning materials are available when I need them.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	35	19	23	47	61	49
Cousino	26	25	21	39	47	46
Mott	62	58	63	0	13	11

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/hig
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino	X		
(3) At Mott	X		
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less of
(1) Majority	T & S		
(2) Plurality			

Profiles regarding access to resources. In totality (Item #24) a similar majority of students and teachers perceive more than favorable access to resources. In all instances staff and students at Mott respond more positively than their counterparts at the other schools.

Goals of suitable access appear to be realized at Mott.

STUDENT STUDY AND AIDS TO SELF-DIRECTION

Re: Item #14: Study under teacher direction and supervision is effective for me at this school.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	77%	28%	36%	9%	43%	36%
Cousino	67	37	39	11	31	29
Mott	62	58	49	11	20	22

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/hig
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott	X		
b. Teachers/teachers:			
(1) Mott/Cousino	X		
(2) Mott/Warren			X
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less o
(1) Majority	T & S		
(2) Plurality			

Re: Item #15: Study in libraries or in special study rooms is effective.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	35	28	29	28	52	44
Cousino	39	40	39	19	34	41
Mott	31	61	63	42	17	19

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren	X		
(2) At Cousino	X		
(3) At Mott			X
b. Teachers/teachers:			
(1) Mott/Cousino	X		
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less of
(1) Majority	S		T
(2) Plurality			

Re: Item #21: Suitable homework assignments are given.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	59	38	29	4	37	37
Cousino	58	40	35	8	37	37
Mott	64	57	57	7	12	16

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/hi
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott	X		
b. Teachers/teachers:			
(1) Mott/Cousino	X		
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less of
(1) Majority			
(2) Plurality			

Re: Item #22: Teachers suggest a variety of projects from which I make choices.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	38	15	11	23	69	70
Cousino	35	24	19	24	57	56
Mott	54	57	47	5	19	22

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/hig
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott	X		
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less of
(1) Majority	T & S		
(2) Plurality			

Re: Item #23: I plan my own projects for learning.

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S.
Warren	16	16	15	50	70	69
Cousino	11	23	18	50	58	55
Mott	17	42	34	23	26	29

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/high
a. Teachers/students:			
(1) At Warren	X		
(2) At Cousino			X
(3) At Mott			X
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less of
(1) Majority		T	
(2) Plurality	S		

Profiles of student study aids. Teachers and students both have positive beliefs regarding the value or appropriateness of supervised study, homework, and teacher suggested projects. (This agreement does not exist at the other schools. Perhaps, these differ at the three schools!)

Teachers at Mott appear to question the study students regard as effective in the library and other study areas, and differ in appraising the extent to which students plan their own learning projects.

It is obvious that students regard themselves more self-actuating at Mott than at the other schools.

Other teaching-learning activities.

Re: Item #12 - "Lectures and teacher demonstrations help me learn at this school."

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S
Warren	69%	32%	35%	9%	42%	42%
Cousino	65	40	37	6	35	37
Mott	72	43	42	3	21	21

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/hig
a. Teachers/students:			
(1) At Warren		X	
(2) At Cousino		X	
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino	X		
(2) Mott/Warren	X		
c. Students/students:			
(1) Mott/Cousino	X		
(2) Mott/Warren	X		

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less of
(1) Majority	T		
(2) Plurality	S		

Re: Item #13 - "Classroom discussions help me learn."

Percent of respondents indicating item true.

School	More than "often"			Less than "often"		
	Teachers	Male Students	Female S.	Teachers	Male S.	Female S
Warren	78%	51%	54%	4%	31%	16%
Cousino	70	58	58	3	18	18
Mott	88	75	77	3	7	5

Observations.

1. Contrasts for more than "often".

	Similar	High/low	Low/hi
a. Teachers/students:			
(1) At.Warren		X	
(2) At Cousino		X	
(3) At Mott		X	
b. Teachers/teachers:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	
c. Students/students:			
(1) Mott/Cousino		X	
(2) Mott/Warren		X	

2. Consensus on truth at Mott.

Dominant extent -	"More often"	"Often"	"Less o
(1) Majority	T & S		
(2) Plurality			

Profiles of teaching-learning methods. Students and teachers at all schools maintain a similar difference--lower regard for lectures and demonstrations by students. However, at Mott half as many rarely find value in lectures as at other schools where more than one-third find value rarely. Likely this difference can result from the fact that fewer lectures are used or recognized as such at Warren and Cousino. Fewer than half of the students buy value as the usual thing!

Discussion is ~~widely~~ strongly accepted at Mott by students and teachers.

Experience at Mott.

Approximately forty-two teachers representing a cross section of staff of Mott High School made fixed-choice responses to questions regarding large and small group classes, self-directed student study, ability grouping, and team teaching. (Appendix, Item #4)

Self-directed study. Examination of individual responses to the questions on types of self-directed learning activities indicates that all three types are used: teacher assignments, teacher-suggested activities, and student designed projects. Teachers using two or all of the types were the rule. One-half of the staff reported use in most all courses. More than half projected that in the future, self-directed learning activities of these types will increase.

Large group instruction. Lectures and film were the usual uses for large group instruction, with testing and student presentations rare. Nineteen teachers indicated use in most all courses; sixteen in some; no one indicated "no use". Thirteen believed that in the future there will be decreased need for large group instruction, while six see increased use.

Small group classes. These are clearly recognized as appropriate for individual help and peer group interaction; use is more extensive than that of large group. The need of the future is for increased use in the opinion of twenty-five, with but one citing decreased use.

Team teaching. Responses relating to team teaching indicate limited use, primarily for lectures, open laboratories, preparation of tests, and film presentations. Very little team effort has dealt with team planning of potential study projects for students, or the planning of student presentations.

Ability grouping. The staff indicated extensive use of ability grouping coupled with differentiated tests, media, evaluation standards, teaching techniques, discipline, and course objectives. Most all courses in the curriculum were suggested as courses appropriate to ability grouping.

Assessment of advantages and disadvantages.

Forty-two staff members at Mott indicated personal belief as to the truth or falsehood of statements concerning characteristics common to flexible-modular schedules. (Appendix, Item #5)

Consensus. Agreement was evident on the part of most teachers in several areas.

1. Self-directed study.

   a. Self-directed student study is an effective means to individualize progress.

   b. Independent study by some students free teachers for intensive work with remedial groups.

   c. High school students do not require an unreasonable amount of help to make independent study meaningful.

   d. There is sufficient time for communication between student and teacher to foster self-directed student study.

   e. Independent study develops student skill in planning and executing worthwhile effort.

2. Unscheduled time.

   a. Unscheduled student time makes it possible for more students to confer personally with teachers.

3. Variable sized groups.

   a. Large group instruction makes for better teacher presentation of essential background data for courses.

   b. Small group classes permit student interaction and learning in an unthreatened environment; foster friendliness, sociability, and group work; are effective in meeting course objectives; offer no problems in the evaluation of student progress.

4. Team teaching.

   a. Team teaching is an advantage in that it provides a variety of teachers to students, and better utilizes teacher specialities.

Majority beliefs. Lesser polarity, but clear majority belief, was evident in several areas.

1. Supportive of the scheduling plan.

   a. Group size.

      (1) Large group presentations take advantage of an improved variety of media.

      (2) Dominant students do not tend to limit participation and destroy opportunities for critical thinking in small group classes.

2. On problems in the plan.

   a. Group size.

      (1) Students do not learn as much in large group instruction as in smaller groups.

   b. Self-directed study.

      (1) Students are not able to accept responsibility for their own study.

      (2) Students generally spend too much time on some activities and too little on others.

   c. Unscheduled time.

      (1) Peer group influences have greater effect during unstructured as opposed to scheduled time.

Divided opinions. Staff responses indicated divided beliefs in several significant areas.

1. Re: Large groups.

   a. Whether or not presentations take advantage of an improved variety of media.

   b. Whether or not these groups make it possible to meet more students in small groups and as individuals.

c. Whether the fairness of tests is a problem.

d. Whether students identify with the teacher.

2. Re: Self-directed study.

a. Whether the advantages of self-direction by students are outweighed by the confusion created by those unable to use it.

3. Re: Team teaching.

a. Whether the cooperative effort is a net time advantage.

b. Whether evaluation of student progress is difficult.

Other assessments by staff and students.

Throughout the experience with flexible scheduling, staff at Mott has been engaged in continuous, informal evaluation and revision. Experience has been translated to action in the format of curriculum guides and learning aids, or to changes in groupings of students and the periodicity, length and type of class sessions. General formal attention on a total staff basis has been less than desired.

In February 1967 a student questionnaire was used for formal guidance. (Appendix, Item #6) Student responses indicated values in open laboratory study, new audio aids, varying class size, availability of teachers for guidance, counselor availability and unscheduled lunch. Their responses indicated neutrality to several items, such as resource materials and study booths, for example. Budgeting of time was a problem which students believed they were overcoming.

VI. ACHIEVEMENT

As previously mentioned, the rationale of flexible-modular scheduling, while it seeks to create a more acceptable teaching-learning environment, also includes an expectation of improved learning. Two major studies were made to determine to what extent students at Mott have differed, if any, from those at the other two senior high schools. Both studies sought objectivity and values beyond the question of total achievement.

Scattergram studies.

Through the assistance of counselors at each senior high school, Central Office clerical staff obtained the following data for the 1968-69 graduates of each of the senior high schools.

1. Intelligence Quotients (I. Q.)
2. Differential Aptitude Test score (D. A. T.)
3. Grade point average (G. P. A.)
4. Scores on Scholastic Aptitude Test (S. A. T.)
5. Scores on American College Test (A. C. T.)

Five scattergrams were plotted for each of the three schools. (Appendix, Item #7) These scattergrams related I. Q. to grade point average; D. A. T. to grade point average; I. Q. to the verbal section of the S. A. T. test; I. Q. to the mathematics section of the S. A. T. test; and Differential Aptitude to the American College Test score. The coordinate system of a scattergram makes it possible for a single point on the graph to represent the two related scores for a given individual. When points have been plotted for all students for whom a given set of two scores exist, a distribution pattern evolves for that building's group.

Two analyses of scattergrams are relevant to this study.

1. Comparison of school groups in terms of ability as evident in the distribution of I. Q. and D. A. T. scores.
2. Comparison of the relative number of low ability-high achievers and high ability-low achievers.

Comparison of ability.

1. I. Q. distributions.

a. Of most all seniors.

School	Percent of group in I. Q. range					
	Below 80	80-89	90-99	100-109	110-119	120 and above
Warren	3%	7%	16%	28%	24%	23%
Cousino	1	6	18	24	27	23
Mott	2	7	16	27	21	27

b. Of those taking S. A. T.

Warren	2	0	2	16	40	40
Cousino	0	0	9	4	28	59
Mott	0	1	4	10	33	51

2. Differential Aptitude distribution.

a. Of most all seniors.

School	Percent in D. A. T. percentile range			
	0-24	25-49	50-74	75-100
Warren	9	27	36	25
Cousino	7	26	31	34
Mott	10	25	31	31

b. Of those taking American College Test.

Warren	0	20	42	37	79
Cousino	4	27	38	30	68
Mott	10	20	31	38	69

3. Observations.

The abilities of "most all seniors" were quite similarly distributed at each school in all ranges.

Those taking S. A. T. and A. C. T. represent persons who are college bound. Those taking A. C. T. were influenced to do so because the Community College desired it.

It is evident that at Warren relatively more persons (58%) in a mid I. Q. range (90-119) took S. A. T. than at Mott (47%); more in same range at Mott than at Cousino (41%). Correspondingly more at Cousino and Mott in the range 120 and above took S. A. T.

Relatively more seniors at Warren who took A. C. T. had D. A. T. scores above the 50 percentile (79%) than at Cousino and Mott (68 and 69%).

Contrasts of over-achievers.

1. Percents of groups showing low ability/high achievement.

Group	Warren	Cousino	Mott
a. Most all seniors.			
I. Q. /G. P. A.	11%	11%	11%
D. A. T. /G. P. A.	14	15	15
b. Those taking--			
S. A. T. verbal	0	1	0
S. A. T. math	0	1	0
c. Those taking--			
A. C. T.	5	1	2

2. Observations.

Mott seniors are much like those at the other schools with respect to receiving marks (G. P. A.) above expectation based on I. Q. and D. A. T.

Too few persons with I. Q. below 100 took S. A. T. and A. C. T. to use data.

This data does not indicate that the situation of Mott has motivated lower than average ability people to receive better than average marks.

Contrasts of under-achievers.

1. Percents of groups showing high ability/low achievement.

Group	Warren	Cousino	Mott
a. Most all seniors.			
I. Q. /G. P. A.	24%	22%	18%
D. A. T. /G. P. A.	13	16	14
b. Those taking--			
S. A. T. verbal	59	45	61
S. A. T. math	35	32	47
c. Those taking--			
A. C. T.	38	41	21

2. Observations.

When all seniors are concerned, relatively fewer at Mott receive marks below ability per I. Q. than at other schools. With respect to D. A. T. and marks, Mott is much like the other schools.

There were relatively more under-achievers among those taking S. A. T. from Mott than from Warren and Cousino. The relatively fewer persons of range 100-120 in Mott's group, and more 120 and above as compared to Warren, would make one expect fewer under-achievers in this group.

Situation in A. C. T. group is the reverse of the above. Markedly fewer Mott seniors show under-achievement and in terms of D. A. T. distributions the reverse would be suspected.

The evidence of the above three paragraphs does not imply that the total learning environment at Mott has influenced the high ability/low achievers in any one direction consistently. One might suspect that the Community College-bound found it less in conflict in realizing potential than did those headed to four year colleges.

General achievement test.

In the early fall of 1969, the senior high school principals and the leader of the study invited the counselor from each senior high school who coordinates testing to consider the need at each senior high school for more achievement data. Counselors had real interest and took initiative to identify an achievement test for seniors at each school, which would be of value both in the achievement question for this study and to the staff at each building in assessing outcomes at that school and in its departments. Counselors assisted in cooperative arrangements at the Macomb Intermediate District to assure the desired scoring and took leadership of the project at each building.

The test included sections on mathematics, reading, social studies, and science. All seniors at each school participated.

On the basis of the first analysis the average scores for each section of the test revealed little, if any, difference. Averages for science and reading were the same for each high school. In mathematics scores at Mott slightly exceed scores at Cousino and Warren; in social studies scores were a bit lower. More detailed computer analysis is required to identify real differences, if any.

VII. COSTS

In the instance of Mott High School's building option to implement flexible-modular scheduling, primary uses of additional funds than those normally available to each senior high school included:

1. Computer scheduling contracts.
2. Workshops to develop new designs for instructions, new course materials, and to learn techniques of developing the schedule itself.
3. Special materials and equipment.
4. Additional staff.

Scheduling, workshops, special materials, and equipment.

Special budgetary appropriations were made to Mott and administered by that school for these purposes.

During the four year period 1966-1970 these included:

Scheduling:	$18,100.00
Consultants:	800.00
Workshops:	2,850.00
Miscellaneous:	900.00
	$22,650.00

$5,500/yr.

Analysis of equipment expenditures for Mott in contrast to those of the other schools did not identify the unique expenditures for carrels and audio equipment for Mott.

For additional staff.

The Personnel Department supplied the number of administrators, teachers, secretaries, and co-op students employed during each of the three years, 1966-67, 1967-68, and 1968-69 at each of the senior high schools. These were translated to the number of employees by category per one thousand students at each location. (Appendix, Item #7)

IX. SUMMARY OF FINDINGS

The student image of school is commendable and in harmony with goals of the Trump philosophy. This positive view includes: motivation; freedom; self-directed learning; responsibility; curricular and extracurricular offerings; access to teachers, counselors and special rooms and materials; homework and other learning projects; and classroom discussions.

Teachers have similar views on the foregoing except that they do not support student views of use of free time, the motivating nature of the school, and the quality of self-directed study. However, most teachers believe self-directed study should be provided to individualize progress and develop student skill in planning and executing worthwhile effort. Teachers support small group classes on many counts, and to a degree believe there is value in large group instruction. Ability grouping is strongly supported. Team teaching is desired by some.

The North Central Association found a desired student-teacher rapport and "a relaxed classroom atmosphere, but one quite conducive to teaching and learning". Further, the N.C.A. cited the values of the schedule to the art, home economics, driver education, and activity programs. To the N.C.A. the problem of the ability of students to use unscheduled time is a joint problem for teachers and students which can be resolved by concentrated attention to establish purposeful learning projects and to provide and supervise appropriate facilities and materials.

Course designs as in operation (grouping, number of mods, frequency of meetings, self-directed learning) do not indicate that the less able and mature are given less unscheduled time than others.

It appears that all staff members do not interrelate large groups and the capacity to provide small groups and individual help. Further, it appears that improved information is needed on the tentative nature of proposed designs for teaching-learning in each course, subject to approval based upon the quality of the design and ability to program it without compromising more important features.

Open laboratories appear to be too small and too many in terms of assured supervision.

Students appear to have learned as well as at other schools.

Additional costs primarily reflect staff for the additional courses carried by able students and computer and inservice expenses.

X. RECOMMENDATIONS

Herein, the investigator details his personal recommendations.

The flexible-modular schedule should not be continued in its present form. Undesirable features should be eliminated. Highly valued features should be retained, if possible. The resulting schedule will likely hold little flexibility in terms of unscheduled student time, but should provide capabilities to retain high priority characteristics of a good learning environment.

The several problems of unscheduled time require:

1. Course designs which schedule tenth grade and less able students into study laboratories appropriately equipped, sized, and supervised at all times.

2. Scheduling of courses involving no planned self-directed study a full fifteen or sixteen mods per week.

3. Positive planning of assignments, and teacher-pupil learning projects adequate to course goals and the time provided during the student's day at school for self-directed study.

4. Use of attendance records as used in vocational education in any laboratories open to students granted unscheduled time. Open laboratories only when teachers are present.

5. A plan to withdraw unscheduled time from any student unable to use it.

6. Computation of the space requirements for laboratories, large groups, and regular classes via course elections and tentative course designs before approving designs and initiating a master schedule.

7. Restriction of lower priority characteristics of the teaching-learning designs to permit necessary controls.

Consultative helps should be secured, such as Dr. Robert Kessler of Educational Coordinates, to examine tentative course designs and advise as to use of contract or local computer capabilities in preparation of a master schedule and schedule printouts.

Extra financial support should be given to the above services.

#1

Re: Survey of Student Opinion - Learning Opportunities

Identifications (Check one for each numbered item)

1. School ( ) Warren ( ) Cousino ( ) Mott ( ) Other

2. Sex ( ) Male ( ) Female

3. Grade ( ) 10 ( ) 11 ( ) 12

4. Subject area of greatest interest to you:
   ( ) English/Language/Drama ( ) Social Sciences
   ( ) Business/Industrial/Vocational ( ) Sciences/Math
   ( ) None of above

Sample survey item

1. A statement is made. For example:
   Statement A. Written reports help me learn what I need to know.

2. Check the extent to which the statement is true for you at this school.
   ( ) always - (means true for you in every instance)
   ( ) usually - (true for you in most all cases)
   ( ) often - (true for you about half of the time)
   ( ) seldom - (true for you only rarely)
   ( ) never - (not true for you)

3. Check the extent Statement A above is true for you.

4. Are there any questions? If not, please check your sincere opinion for each of the twenty-five statements which follow.

---

1. This high school motivates me to good learning.
   ( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

2. At this high school it is easy for me to secure teacher help.
   ( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

3. This school provides time to do learning tasks I believe important.
   ( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

4. Responsibilities given to me are appropriate.
   ( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

5. At this school I have suitable access to the library.
   ( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

6. I have suitable access to counselors.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

7. I have suitable access to typing rooms, laboratories, shops, and other special rooms necessary to my program.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

8. I have appropriate choices of courses.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

9. Opportunity exists at this school to take the extra-curricular activities I want.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

10. I have sufficient freedom to decide how to use my time during the school day.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

11. I am able to secure teacher help outside of scheduled classes when needed.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

12. Lectures and teacher demonstrations help me learn at this school.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

13. Classroom discussions help me learn.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

14. Study under teacher direction and supervision is effective for me at this school.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

15. Study in libraries or in special study rooms is effective.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

16. I look forward to going to school each day.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

17. I have sufficient opportunity to attend musical concerts, dramas, art displays, and cultural assemblies sponsored by this school.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

18. I have sufficient opportunity to participate in student government.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

19. I have sufficient opportunity to participate in physical education and sports.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

20. I am able to schedule the courses I need.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

21. Suitable homework assignments are given.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

22. Teachers suggest a variety of projects from which I make choices.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

23. I plan my own projects for learning.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

24. At this school, teachers, special study or work rooms, and learning materials are available when I need them.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

25. Each marking period in this high school I have received "B" or higher marks in half of my subjects.
( ) Always ( ) Usually ( ) Often ( ) Seldom ( ) Never

: Study of Senior High Attendance, Warren Consolidated Schools

: Clayton W. Pohly Date: March 4, 1970

Period	Percent of Attendance: Present/members		
	Warren High School	Cousino High School	Mott High School
st 10 weeks 66-67	94.5	94.1	95.5
nd 10 weeks 66-67	90.0	94.5	92.7+
rd 10 weeks 66-67	90.0	92.1	92.8
h 10 weeks 66-67	91.0	92.9	94.0
ear 66-67	91.6 (10-12)*	93.4 (10-12)*	93.6 (8-11)*
t 10 weeks 67-68	94.6	95.4	96.
nd 10 weeks 67-68	91.4	91.0	94.7
rd 10 weeks 67-68	92.8	94.9	93.5+
th 10 weeks 67-68	94.3	92.5	95.0
Year 67-68	93.2 (9-12)*	93.3 (10-12)*	94.6 (8-12)*
st 10 weeks 68-69	93.3	93.1	94.7
nd 10 weeks 68-69	91.5	92.4	91.9+
rd 10 weeks 68-69	93.1	91.5	92.+
th 10 weeks 68-69	93.5	91.7	91.5
Year 68-69	92.8 (9-12)*	92.2 (9-12)*	92.5 (9-12)*
Years 7 - 68/69	92.4	92.9	93.6

Data supplied by R. Ellis

Grades attending. 66-67: 10-12

C. W. Pohly
9/69

#2

Re: Analysis of Senior High Attendance, 1966-69.

By: Clayton W. Pohly, March 4, 1970

Observations

1. The twelve quarterly percentages.

✓	Mott highest of three:	7 of 12
+	Mott second high:	4 of 5
	Mott in third place:	1

2. The yearly percentages.

Mott highest of three:	2 of 3
Mott second high:	1

3. The three year average.

Mott highest with 1.2 margin over lowest average.

4. Only in 1968-69 were grades 9-12 conducted at each school. In that year Mott's attendance was the average of the other two schools.

5. Warren had a higher attendance when 9-12 were housed as opposed to 10-12; Cousino, conversely had a higher attendance when 10-12 were served (1966-67 and 1967-68) rather than 9-12; Mott had a higher percentage when grades 8-11 and 8-12 (1966-67 and 1967-68 respectively) than when 9-12.

6. Annual changes to include higher or lower grades had differing results:

Warren:	1967-68 change to lower grades - higher percentage
Cousino:	1968-69 change to lower grades - lower percentage
Mott:	1967-68 change to higher grades - higher percentage
	1968-69 change to higher grades - lower percentage

Potential hypotheses and Conclusions

1. Mott's mod-flex schedule was accompanied by equal or higher attendance than at other Warren senior high schools.

Conclusion. Observations 1, 2, 3, and 4 substantiate this.

2. Mott's equal or higher attendance resulted from greater presence of lower grade groups.

   Conclusion. Attendance equal to average in the third year and higher attendance when eighth graders were present tends to support this hunch. However, observations 5 and 6 neutralize the pattern when all schools and changes are considered.

3. Mott's higher attendance resulted from initial acceptance of mod-flex schedule, and third year average indicates the halo is wearing thin.

   Conclusion. A hunch requiring other measures of attitudes toward school.

Clayton W. Pohly
Associate Superintendent for Curriculum Services

nm

#4

SECTION I: SURVEY OF TEACHER EXPERIENCE AT MOTT SENIOR HIGH SCHOOL

Re: Large group instruction (More than 35 students per session)

1. Used for your lectures--
   ( ) Usually ( ) Occasionally ( ) Never

2. Used for your testing--
   ( ) Usually ( ) Occasionally ( ) Never

3. Used for your films--
   ( ) Usually ( ) Occasionally ( ) Never

4. Used for presentations by your students--
   ( ) Usually ( ) Occasionally ( ) Never

5. Extent of your use--
   ( ) In most all courses ( ) In some ( ) In none

6. What future need do you believe exists for large group instruction?
   ( ) No change ( ) Decreased use ( ) Increased use

Re: Small group classes (Fewer than 20 students)

1. Used to permit more individual help--
   ( ) Usually ( ) Occasionally ( ) Never

2. Used for peer dynamics and interaction--
   ( ) Usually ( ) Occasionally ( ) Never

3. Extent of your use--
   ( ) In most all courses ( ) In some ( ) In none

4. What future need do you believe exists for small group instruction?
   ( ) No change ( ) Decreased use ( ) Increased use

Re: Self-directed student study (Learning activities in the absence of the teacher)

1. Types used: (Check all actually used)
   ( ) Teacher assignments for out of class preparation.
   ( ) Student selections from projects suggested by teacher.
   ( ) Student designed/teacher approved projects.
   ( ) Other _____.

2. Extent of use--
   ( ) In most all courses ( ) In some ( ) In none

3. What future need do you believe exists for self-directed student study?
   ( ) No change ( ) Decreased use ( ) Increased use

Re: Ability grouping (The scheduling of homogeneous groups based upon ability or past achievement)

1. Extent of your use--
   ( ) In most all courses ( ) In some ( ) In none

2. As practiced, ability grouping permitted me to use the following:
(Check as many as appropriate)
( ) Different tests
( ) Different media
( ) Different patterns of large and small group instruction
( ) Different standards for evaluating progress
( ) Different teaching techniques
( ) Other _____

3. In what courses in your department would you recommend ability grouping? _____ _____ _____

Re: Team teaching (Planned participation of more than one teacher in the instruction of a given group of students)

1. Extent of your use--
( ) In most all courses ( ) In some ( ) In none

2. Aspects of teaching shared by team members. (Check as many as appropriate)
( ) Lectures
( ) Open labs for the department
( ) Planning of student-directed study projects for the department
( ) Preparation of tests
( ) Films
( ) Major student presentations
( ) Other _____

3. What future need does your experience indicate for team teaching?
( ) No change ( ) Decreased use ( ) Increased use

MASTER TABULATION

SECTION I: SURVEY OF TEACHER EXPERIENCE AT MOTT SENIOR HIGH SCHOOL

Re: Large group instruction (More than 35 students per session)

1. Used for your lectures--
   (29) Usually (10) Occasionally ( ) Never

2. Used for your testing--
   (11) Usually (16) Occasionally (11) Never

3. Used for your films--
   (21) Usually (15) Occasionally (1) Never

4. Used for presentations by your students--
   (4) Usually (21) Occasionally (13) Never

5. Extent of your use--
   (19) In most all courses (16) In some ( ) In none

6. What future need do you believe exists for large group instruction?
   (18) No change (13) Decreased use (6) Increased use

Re: Small group classes (Fewer than 20 students)

1. Used to permit more individual help--
   (24) Usually (2) Occasionally (1) Never

2. Used for peer dynamics and interaction--
   (13) Usually (12) Occasionally (2) Never

3. Extent of your use--
   (34) In most all courses (7) In some (2) In none

4. What future need do you believe exists for small group instruction?
   (2) No change (1) Decreased use (25) Increased use

Re: Self-directed student study (Learning activities in the absence of the teacher)

1. Types used: (Check all actually used)
   (30) Teacher assignments for out of class preparation. (# only 1)
   (20) Student selections from projects suggested by teacher.
   (28) Student designed/teacher approved projects.
   (3) Other Individual research on course related topics
   Independent student directed learning

2. Extent of use--
   (18) In most all courses (18) In some (1) In none

3. What future need do you believe exists for self-directed student study?
   (14) No change (4) Decreased use (24) Increased use

Re: Ability grouping (The scheduling of homogeneous groups based upon ability or past achievement)

1. Extent of your use--
   (19) In most all courses (14) In some (7) In none

2. As practiced, ability grouping permitted me to use the following:
(Check as many as appropriate)
(22) Different tests
(21) Different media
(20) Different patterns of large and small group instruction
(18) Different standards for evaluating progress
(17) Different teaching techniques
( ) Other Different assignments - Individualized attention - More advanced material - different objectives - different disciplines / techniques

3. In what courses in your department would you recommend ability grouping? Typing D.A.P.B. Bkkpg all - Conservation - Algebra Geom. - 3D Design drawing + Painting - Studio - Design + media Home Ec - English - Clothing Construction - Social Studies - Math Foods Planning Child Dev. Am. History Health Sociology Gov't Psychology Science

RE: Team teaching (Planned participation of more than one teacher in the instruction of a given group of students)

1. Extent of your use--
(6) In most all courses (17) In some (14) In none

2. Aspects of teaching shared by team members. (Check as many as appropriate)
(23) Lectures
(18) Open labs for the department
(9) Planning of student-directed study projects for the department
(16) Preparation of tests
(19) Films
(9) Major student presentations
( ) Other Labs - single teachers

3. What future need does your experience indicate for team teaching?
(9) No change (7) Decreased use (19) Increased use

#5

SECTION II: ASSESSMENT OF ADVANTAGES/DISADVANTAGES

Educators differ in their assessment of advantages and disadvantages of large group instruction, small group class,etc. A given statement to one is an advantage, but to another a disadvantage.

In the left column are statements commonly made. Opposite them, please check your belief:

1. Is the statement usually true or false inyyour opinion?
2. If considered true, is it an advantage or a disadvantage?

Re: Large group instruction	Usually	If true
Makes possible better teacher presentation of essential background data for courses.	( ) false ( ) true	( ) advantage ( ) disadvantage ( ) neither
Student does not identify with his teacher.	( ) false ( ) true	( ) advantage ( ) disadvantage ( ) neither
Appropriate content for large group instruction is difficult to assemble.	( ) false ( ) true	( ) advantage ( ) disadvantage ( ) neither
Large group presentations take advantage of an improved variety of media.	( ) false ( ) true	( ) advantage ( ) disadvantage ( ) neither
Large groups make it possible to meet more students as individuals and in small groups.	( ) false ( ) true	( ) advantage ( ) disadvantage ( ) neither
Students learn as much as in smaller groups.	( ) false ( ) true	( ) advantage ( ) disadvantage ( ) neither
Re: Small group classes		
Permit student interaction and learning in an unthreatened environment.	( ) false ( ) true	( ) advantage ( ) disadvantage ( ) neither
Foster friendliness, sociability, and group work.	( ) false ( ) true	( ) advantage ( ) disadvantage ( ) neither

#5

Re: Small group classes (continued)

Often prove ineffective in meeting course objectives.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Make it difficult for a teacher to evaluate student progress.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Dominant students tend to limit participation and destroy opportunities for critical thinking.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Re: Self-directed student study (learning activities in the absence of the teacher)

Provides the opportunity to the student to prescribe essential learning.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Students are not able to accept responsibility for own study.
(✓) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

There is insufficient time for necessary communication between student and teacher.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Independent study by some students frees the teacher for intensive work with remedial groups.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

An effective means to individualize progress.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Students generally spend too much time on some activities and too little on others.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

High school students generally require too much help to make independent study meaningful.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Re: Self-directed student study (continued)

Independent study develops student skill in planning and executing worthwhile effort.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Re: Self-directed study (unscheduled time)

Advantages of self-direction by students are outweighed by the confusion created by those unable to use it.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

More students are able to confer personally with teachers on an individual basis.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Peer group influences have greater influence during unstructured as opposed to scheduled time.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Re; Team teaching

Cooperative planning demands more time than worth.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

A variety of teachers is an advantage to students.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Cooperative planning reduces total time required for large group teaching.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

The fairness of tests becomes a real problem.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Evaluation of student progress is difficult.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Utilization of teacher specialities makes a better product.
( ) false
( ) true
( ) advantage
( ) disadvantage
( ) neither

Current professional responsibility:

#5 MASTER TABULATION

POHLY

SECTION II: ASSESSMENT OF ADVANTAGES/DISADVANTAGES

Educators differ in their assessment of advantages and disadvantages of large group instruction, small group class,etc. A given statement to one is an advantage, but to another a disadvantage.

In the left column are statements commonly made. Opposite them, please check your belief:

1. Is the statement usually true or false inyyour opinion?
2. If considered true, is it an advantage or a disadvantage?

A-ACCEPT (1) SOMEWHAT DIFFERENT (X) CROSS BELIEFS

Re: Large group instruction	Usually	If true
Makes possible better teacher presentation of essential background data for courses.	(8) false (34) true	(30) advantage (1) disadvantage (2) neither
Student does not identify with his teacher.	(19) false (15) true	(2) advantage (2) disadvantage (4) neither
Appropriate content for large group instruction is difficult to assemble.	(27) false (9) true	(2) advantage (2) disadvantage (5) neither
Large group presentations take advantage of an improved variety of media.	(2) false (38) true	(24) advantage (1) disadvantage (0) neither
Large groups make it possible to meet more students as individuals and in small groups.	(19) false (19) true	(18) advantage (0) disadvantage (2) neither
Students learn as much as in smaller groups.	(27) false (11) true	(9) advantage (0) disadvantage (4) neither
Re: Small group classes		
Permit student interaction and learning in an unthreatened environment.	(3) false (38) true	(30) advantage (0) disadvantage (0) neither
Foster friendliness, sociability, and group work.	(1) false (40) true	(40) advantage (0) disadvantage (0) neither

Re: Small group classes (continued)

A. Often prove ineffective in meeting course objectives.

(33) false
(7) true

(4) advantage
(3) disadvantage
(0) neither

4 Make it difficult for a teacher to evaluate student progress.

(40) false
(2) true

(1) advantage
(1) disadvantage
(0) neither

Dominant students tend to limit participation and destroy opportunities for critical thinking.

(34) false
(11) true

(1) advantage
(9) disadvantage
(1) neither

II Re: Self-directed student study (learning activities in the absence of the teacher)

Provides the opportunity to the student to prescribe essential learning.

(12) false
(24) true

(23) advantage
(0) disadvantage
(2) neither

Students are not able to accept responsibility for own study.

(14) false
(27) true

(2) advantage
(21) disadvantage
(1) neither

There is insufficient time for necessary communication between student and teacher.

(30) false
(9) true

(2) advantage
(8) disadvantage
(0) neither

Independent study by some students frees the teacher for intensive work with remedial groups.

(6) false
(31) true

(28) advantage
(0) disadvantage
(2) neither

An effective means to individualize progress.

(4) false
(34) true

(31) advantage
(1) disadvantage
(1) neither

Students generally spend too much time on some activities and too little on others.

(8) false
(28) true

(0) advantage
(19) disadvantage
(9) neither

High school students generally require too much help to make independent study meaningful.

(31) false
(9) true

(0) advantage
(4) disadvantage
(4) neither

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Re: Self-directed student study (continued)

Independent study develops student skill in planning and executing worthwhile effort.	(3) false (34) true	(30) advantage (0) disadvantage (2) neither

II Re: Self-directed study (unscheduled time)

Advantages of self-direction by students are outweighed by the confusion created by those unable to use it.	(18) false (20) true	(5) advantage (10) disadvantage (1) neither
More students are able to confer personally with teachers on an individual basis.	(5) false (36) true	(27) advantage (0) disadvantage (3) neither
Peer group influences have greater influence during unstructured as opposed to scheduled time.	(7) false (35) true	(2) advantage (24) disadvantage (6) neither

III Re; Team teaching

Cooperative planning demands more time than worth.	(36) false (11) true	(2) advantage (7) disadvantage (0) neither
A variety of teachers is an advantage to ...i students.	(5) false (24) true	(22) advantage (1) disadvantage (1) neither
Cooperative planning reduces total time required for large group teaching.	(18) false (16) true	(11) advantage (2) disadvantage (2) neither
The fairness of tests becomes a real problem.	(19) false (10) true	(0) advantage (10) disadvantage (0) neither
Evaluation of student progress is difficult.	(19) false (14) true	(1) advantage (8) disadvantage (4) neither
Utilization of teacher specialities makes a better product.	(4) false (34) true	(24) advantage (0) disadvantage (2) neither

~~Current professional responsibility:~~

 ( ) ~~Teacher~~ ( ) ~~Counselor~~ ( ) ~~Administrator~~

#0 [illegible] SENIOR HIGH SCHOOL STUDENT QUESTIONNAIRE

Tuesday, February 14, 1967

DIRECTIONS: The following questions are about modular scheduling and your feelings concerning it at this time. Read the question and then circle either "yes" or "no". You do not have to put your name on the paper.

YES	NO		
478	203	1.	Do you feel that varying class sizes (large group, small group, etc.) helps you learn better than you did last year?
402	280	2.	Was budgeting of time a serious problem for you at the beginning of school?
124	558	3.	Is the budgeting of time as serious a problem now as it was at the beginning of school?
298	284	4.	Does the Student Center serve a worth-while purpose for you?
347	335	5.	Do you feel that there is an adequate supply of different types of printed materials in the resource centers?
390	292	6.	Are the counselors more available for you to see this year?
538	144	7.	Do you feel High School students are capable of budgeting unscheduled time efficiently?
306	376	8.	Do you prefer using study booths in the resource centers rather than open tables?
479	203	9.	Have the teachers usually been available to work with you individually during your unscheduled time?
575	107	10.	Has the use of open labs and resource centers made it possible for you to do more homework at school?
202	480	11.	Is it difficult to locate materials you need in the resource centers?
470	212	12.	Has there usually been work space available when you needed it in the open labs and/or resource centers?
498	184	13.	Do you feel the individual use of audio-visual equipment, such as tape recorders, filmstrip viewers, 8 mm loop projectors, etc., makes learning easier for you?
443	239	14.	Do you feel that you are learning more under modular scheduling?
238	444	15.	Have you had more work to take home this year than last?
375	307	16.	Do you usually do work in the resource centers that you did in the library last year?.
342	340	17.	Have you been able to visit or attend special presentations in other courses during your unscheduled time?
54	628	18.	Would you rather have a scheduled lunch time?
490	192	19.	Do you feel that the activity period should be with the school day?
407	275	20.	Would you like to have a teacher as a counselor to help you plan your educational program?